



09/995 096

cfc

UNITED STATES PATENT AND TRADEMARK OFFICE
LETTER CALLING ATTENTION TO ERROR IN PATENT

U.S. Patent No. 7,024,193 B2

Issued: April 4, 2006

Inventors: Tuutijarvi

Attorney Docket No.: 872.0037.U1(US)

Certificate

APR 20 2006

of Correction

Commissioner for Patents
P.O. Box 1450
Mail Stop PGPUB
Alexandria, VA 22313-1450

The following error appears in the above-identified Letters Patent:

In Claim 6, Column 8, line 50 delete "RE" and replace with -- RF --.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert J. Mauri". It is written in a cursive style and is positioned above a horizontal line.

Date: 4/12/07

Robert J. Mauri (Reg. No. 41,180)
Harrington & Smith, LLP
4 Research Drive
Shelton, CT 06484-6212
203-925-9400
Customer No. 29683

Patent No. 7,024,193 B2

APR 21 2006



CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date shown below in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

4-13-06
Date

Ann Okrentowich
Ann Okrentowich

APR 21 2006



US 7,024,193 B2

7

8

neighbor base station to be measured by receiving a traffic channel that is on the same frequency channel, and by extracting from the received traffic channel certain information that can be used to identify the base station that transmits the traffic channel. At Step D the mobile station 10 compares the extracted information with the information used for identifying the neighbor base stations that transmit frequency channels received in the measurement list, and thus ensures that the correct frequency channel is being received. At Step E the mobile station 10 associates the extracted information with the result of a measurement.

In the preferred embodiment the measurement is an Enhanced Observed Time Difference (E-OTD) measurement, the information is comprised of a Digital Voice Color Code, and the Step C of extracting information includes a sub-step of decoding a Coded Digital Voice Color Code field that is a part of the DTC that is in the same RF channel as the DCCH used for the measurement.

In the preferred embodiment the Step E of associating the extracted information operates to include a channel number, a hyperband, and the DVCC with the result of the E-OTD measurement that is reported to the wireless network 2 from the mobile station 10.

While the invention has been particularly shown and described with respect to preferred embodiments thereof, it will be understood by those skilled in the art that changes in form and details may be made therein without departing from the scope and spirit of the invention.

What is claimed is:

1. A method for making measurements of neighbor base stations with a mobile station, comprising:

receiving a measurement list of neighbor base stations, the list including information for identifying at least one neighbor base station that transmits a frequency channel to be measured;

tuning to a frequency channel transmitted by the neighbor base station, the frequency channel containing a control channel to be used for making a time difference measurement;

verifying that the frequency channel is a correct frequency channel transmitted by the neighbor base station to be measured by receiving a traffic channel that is on the same frequency channel and extracting from the received traffic channel certain information that can be used to identify the base station that transmits the traffic channel;

comparing the extracted information with the information for identifying the neighbor base station that was received in the measurement list to ensure that the correct frequency channel is being received;

making the time difference measurement between the neighbor base station and a reference base station using the control channel on the frequency channel; and associating the extracted information with the result of the measurement.

2. A method as in claim 1, wherein the measurement is an Enhanced Observed Time Difference (E-OTD) measurement, wherein the information is comprised of a Digital Voice Color Code (DVCC), and where extracting includes decoding a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH) used for the E-OTD measurement, and wherein associating includes a channel number, a hyperband, and the DVCC with the result of the E-OTD measurement that is reported to a wireless network from the mobile station.

3. A method as in claim 1, wherein the information is comprised of a Digital Voice Color Code (DVCC), and where extracting includes decoding a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH) used for the measurement.

4. A method as in claim 1, wherein the measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

5. A mobile station comprising an RF transceiver having an RF transmitter and an RF receiver, said mobile station further comprising a controller coupled to the RF transceiver and being programmed for making measurement of neighbor base stations, said controller being programmed to (a) receive a measurement list of neighbor base stations from a serving base station, the list containing information for identifying at least one neighbor base station that transmits a frequency channel; (b) to tune said RF receiver to a frequency channel transmitted by the neighbor base station, the frequency channel containing a control channel to be used for making a time difference measurement; (c) to verify that the frequency channel is a correct frequency channel transmitted by the neighbor base station to be measured by receiving a traffic channel that is on the same frequency channel and by extracting from the received traffic channel certain information that can be used to identify the base station that transmits the traffic channel; (d) to compare the extracted information with the information for identifying the at least one neighbor base station that was received in the measurement list to ensure that the correct frequency channel is being received; (e) to make the time difference measurement between the neighbor base station and a reference base station using the control channel on the frequency channel; and (f) to associate the extracted information with the result of the measurement.

6. A mobile station as in claim 5, wherein the measurement is an Enhanced Observed Time Difference (E-OTD) measurement, wherein the information is comprised of a Digital Voice Color Code (DVCC), and where said controller, when extracting said certain information, decodes a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH) used for the E-OTD measurement, and where said controller, when associating the extracted information with the result of a measurement, includes a channel number, a hyperband and the DVCC with the result of the E-OTD, and reports the result of the measurement by transmitting the result through said RF transmitter.

7. A mobile station as in claim 5, wherein the information is comprised of a Digital Voice Color Code (DVCC), and where said controller, when extracting said certain information, decodes a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH) used for the measurement.

8. A mobile station as in claim 5, wherein the measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

9. A method for making Enhanced Observed Time Difference (E-OTD) measurements with a mobile station, comprising:
receiving from a neighbor base station a signal on a Digital Traffic Channel (DTC) time slot that is on the same frequency with a desired Digital Control Channel (DCCH) that is to be used for measuring the E-OTD;

RF
(Spec
Listed as
11/27/2001)